



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,340	08/21/2003	Fong Liaw	002.P054	8337
65638	7590	10/07/2010	EXAMINER	
OMIKRON IP LAW GROUP 16325 Boones Ferry Rd. SUITE 204 LAKE OSWEGO, OR 97035			SHAND, ROBERTA A	
ART UNIT	PAPER NUMBER			
		2472		
MAIL DATE	DELIVERY MODE			
10/07/2010	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/646,340	<b>Applicant(s)</b> LIAW ET AL.
	<b>Examiner</b> Roberta A. Shand	<b>Art Unit</b> 2472

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 11 February 2010.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 3-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 3-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/GS-68)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann (U.S. 5905873) in view of Willis (U.S. 2005/0201387 A1).

3. Regarding claims 1, 14 and 18 Hartmann teaches a method of processing a packet comprising: receiving the packet; translating the packet from a first protocol-specific format (fig. 7b, input packet format) to a canonical packet format (col. 3, lines 17-26, Hartmann teaches converting packets to a generic format); translating the packet from the canonical packet format (generic format) to a second protocol-specific format (fig. 7b, output packet format); and forwarding the packet (abstract).

4. Hartmann does not teach the canonical packet format comprising a fixed length generic packet format that can represent multiple protocol-specific formats, but is different from any one protocol-specific format.

5. Willis teaches (paragraph 76) the canonical packet format comprising a fixed length (AAL5 is an ATM format that uses fixed length cells) generic packet format that can represent multiple protocol-specific formats, but is different from any one protocol-specific format (fig. 7 Willis depicts the IP packet entering the interconnect 62 and paragraph 76 recites ATM and IP packets are converted to a canonical format for transmission over the interconnect 62). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hartmann to include Willis' canonical frames having AAL5 format to allow for multiple format packets to be exchanged over single interconnect.

6. Regarding claim 3, Hartmann teaches (fig. 6) the translating is performed in a network device.

7. Regarding claim 4, Hartmann teaches (fig. 6) the translating is performed in a network switch.

8. Regarding claim 5, Hartmann teaches (fig. 6) the translating is performed in a network switch that includes a pooling switch (packet switch 570).

9. Regarding claim 6, Hartmann teaches (col. 10, lines 10-15) the first and second protocol-specific formats are the same.

10. Regarding claim 7, Hartmann teaches (col. 15, line 60 – col. 16, line 12) translating includes copying protocol-specific fields from the packet in the first protocol-specific format.

11. Regarding claim 8, Hartmann teaches (col. 15, line 60 – col. 16, line 12) translating includes copying protocol-specific fields from the packet in the first protocol-specific format to protocol-specific fields in the packet in the canonical (generic) packet format.

12. Regarding claim 9, Hartmann teaches (col. 11, lines 29-44) translating includes copying general fields from the packet in the first protocol-specific format.
13. Regarding claim 10, Hartmann teaches (col. 11, lines 30-36) translating includes copying multiple protocol-specific fields from the packet in the first protocol-specific format.
14. Regarding claim 11, Hartmann teaches (cool. 11, lines 45-53) translating includes copying protocol-specific fields from the packet in the first protocol-specific format to common fields in the packet in the canonical (generic) packet format.
15. Regarding claim 12, Hartmann teaches copying protocol-specific fields from the packet in the first protocol-specific format to protocol-specific fields in the packet in the canonical (generic) packet format (col. 11, lines 19-29); copying general fields from the packet in the first protocol-specific format to general fields in the packet in the canonical (generic) packet format (col. 11, lines 29-44); and copying common fields from the packet in the first protocol-specific format to common fields in the packet in the canonical packet format (cool. 11, lines 45-53). It is inherent is Hartmann's system that copying takes place in order to convert between generic packet format and original protocol.
16. Regarding claim 13, Hartmann teaches (figs. 7b) the translating is performed in a network device; translating the packet from the first protocol-specific format to the canonical packet format occurs during data ingress (fig. 7b depicts input packet format being converted to

generic packet format); and translating the packet from the canonical (generic) packet format to the second protocol-specific format occurs during data egress (fig. 7b depicts packet being converted from generic packet format to output packet format).

17. Regarding claim 15, Hartmann teaches (fig. 6) the ingress and egress interfaces are the same physical interface Hartmann teaches in fig. 6 that the crossbar is single sided so the protocol converters are both input and output devices.

18. Regarding claim 16, Hartmann teaches (fig. 8) the ingress and egress processing engines are implemented on a single physical processor.

19. Regarding claims 17 and 19, Hartmann teaches (col. 11, lines 19-29) at least one field of the canonical packet format is shared by multiple protocols.

20. Regarding claim 20, the canonical packet format includes: a multiple protocol-specific field associated with a field common to multiple protocols (col. 11, lines 37-44); and a protocol specific-field associated with a field that is specific to only one protocol (col. 11, lines 30-36).

#### *Response to Arguments*

21. Applicant's arguments with respect to claims 1 and 3-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A. Shand whose telephone number is (571)272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roberta A. Shand  
/R. A. S./  
Examiner, Art Unit 2472

/William Trost/  
Supervisory Patent Examiner, Art Unit 2472